

MONTANA STATE DEPARTMENT OF FISH AND GAME
FEDERAL AID IN FISH RESTORATION SECTION

HELENA, MONTANA

Job Completion Report
Development Project

State of Montana

Name Northwest Montana Fishery Study

Project No. F-24-D-25

Title Statewide Lake & Stream Rehabilitation
Twin (Turtle) Lake

PERIOD: May 1, 1959 to March 30, 1960

ABSTRACT:

Twin Lake (Turtle Lake), in Lake County was treated with 250 gallons of rotenone emulsives on September 25, 1959. This treatment was to remove populations of small perch and sunfish as well as a light population of largemouth bass. Kind and amount of toxicant used and methods of application are described. Recommendations are made for restocking the lake with game fish and for evaluating the success of chemical eradication and re-stocking as a management tool.

OBJECTIVES:

To remove as completely as possible the existing fish population from Twin Lake (Turtle Lake). To establish a cutthroat trout fishery after detoxification.

TECHNIQUES USED:

On September 25, 1959, Twin Lake (Turtle Lake) was treated with 250 gallons of rotenone emulsives (Pro-noxfish). Three boats with 2-man crews were used in applying the toxicant. Application was accomplished by gravity feeding the toxicant into the prop wash of the outboard. Weedy and seep areas were sprayed by a motor driven pump. Back pack fire pumps were used in inaccessible areas.

FINDINGS:

Twin Lake is located approximately six miles east of Polson, Lake County, Montana. At the time of rehabilitation there were 44 surface acres, a total of 745 acre-feet of water with a maximum depth of 34 feet.

Shortly after the first spray application, distressed and moribund fish were observed in the shallow areas of the lake. These fish were primarily young of the year yellow perch (Perca flavescens) and sunfish (Lepomis sp.). As application progressed to the deeper waters, largemouth black bass (Micropterus salmoides) and larger specimens of the yellow perch and sunfish were observed in distress. Application time was approximately six hours. At the termination of this period suckers (Catostomus sp.) were in distress with uncountable numbers of dead or dying fish of the above mentioned species.

Back pumps were used in toxifying the inlet above the lake. Eastern brook trout (Salvelinus fontinalis) were the only species observed in the stream. No

eastern brook trout were observed in the lake proper.

Periodic observations made during the month of October indicated no fish activity.

RECOMMENDATIONS:

1. In June of 1960 cutthroat trout (Salmo clarki), Ashley Lake strain, fry should be introduced in numbers as determined from Montana's stocking table.
2. Periodic creel census coverage should be maintained, to give an estimate of catch per hour of cutthroat trout from this lake.
3. Spring observations should be made on the lake inlet during 1962-1963 to determine the extent of spawning activity and estimate the recruitment to the lake population.

DATA AND REPORTS:

The original data and reports are in the fisheries office of the Fish and Game District Headquarters in Kalispell.

Prepared by Boyd R. Opheim

Date April 6, 1960

Approved by Genge D. Helton
Chief Fisheries Management
Biologist